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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/776,075	02/02/2001	Juha Nurmi	14291	9448

7590 03/25/2003

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EXAMINER
HENDRICKS, KEITH D

ART UNIT	PAPER NUMBER
1761	7

DATE MAILED: 03/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/776,075	Applicant(s) NURMI ET AL.	
	Examiner Keith Hendricks	Art Unit 1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-24 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4-6 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1:

- The phrase "controlled by controlling parameters" is indefinite. Initially, it is unclear as to what method steps are encompassed by the term "controlled", such that the claimed process is somehow modified or adjusted. Secondly, it is unclear as to how the "controlling parameters" are to, in fact, "control" the claimed process.
- The term "intentionally", as found in claim 1, does not serve to clearly and distinctly set forth the metes and bounds of the claimed invention. It is unclear as to how one skilled in the art is to determine if residual moisture is "intentionally" placed upon the coated core, or if it was unintentionally left by accident. Further, one skilled in the art would have no means by which to repeat and practice the claimed invention.
- The term "substantial" is a relative term which renders the claim indefinite. The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Further, it is unclear as to how one skilled in the art is to determine if some other proportion of residual moisture is "intentionally" left upon the coated core, versus a "substantial" amount.

The term "large" in claim 6 is a relative term which renders the claim indefinite. The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Similarly, in claim 22, the term "several times" is a relative term which renders the claim indefinite.

Regarding claims 7-8, 11 and 17-18, the use of the phrases "preferably", "preferably more", "most preferably", "i.e.", and "and/or", renders these claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claims 11-14, the phrase "the temperature... is raised to" (claim 11) is indefinite. As no starting temperature is provided, the phrase is therefore not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In claim 15, the recitation of the options of sugars is indefinite, as it is unclear if this is an open or closed set. An open set of elements is indicated by the use of the term "comprising", and recites the elements in the alternative, using "or". For example, the "a sugar comprising saccharose, fructose or glucose". Alternatively, a closed set may be indicated by the phrase "a sugar selected from the group consisting of saccharose, fructose and glucose".

In claim 21, it is suggested that the parentheses be deleted, and the claim be amended to recite "...is reversed such that the air flows...". Currently, it is unclear whether the limitations within the parentheses are part of the claimed invention.

In claim 23, the phrase "the fully coated cores" lacks an antecedent basis within claim 1, from which it depends. Claim 1 refers to "chewable coated cores", and describes a continuous process, yet does not specifically provide an end product which would be a "fully coated core."

Claim Objections

Claim 1 is objected to because of the following informalities: it is suggested that the phrase "characterized in that" be amended to "wherein", thus conforming with the remainder of the claims, and placing a defined emphasis on the positive limitations of the claimed invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (c) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartel ("Crystallization and Drying During Hard Panning", of record).

This reference provides both general and specific information regarding the factors of crystallization and drying in a hard panning process. At page 54, col. 1, the reference states that "if drying occurs too rapidly, the surface layer of the film can dry too quickly, causing formation of a skin of rubbery fluid that inhibits moisture transfer. Once this skin forms, it is more difficult to remove the water trapped in the layers below." This is evidence of the property of "a substantial residual moisture in the drying coating layer at the start of a subsequent spraying phase", as recited in instant claim 1. Claims 2-4 provide various parameters which may be selected to be varied, but do not specifically recite the alteration of these factors in the actual process, and thus are also anticipated by the reference. Regardless, the reference discloses the modification of each of these factors (pg. 55-57).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8, 15-17 and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Degady et al. (US PAT 6,365,203), in view of Hartel.

Degady et al. disclose a process of "continuous coating of chewing gum materials". A 60-70% sugar content coating syrup is sprayed onto chewing gum cores in a coating drum. Heated air is

introduced into the drum members in order to dry the core pieces, where "the coating material is dried on the individual pieces or cores of gum material at the same time as the solution is applied to the pieces of material" (col. 4). The heated air is introduced through perforated mesh walls, where "preferably the air is dehumidified" (col. 5), and where "the air is also continuously exhausted from the drum members in order to continuously supply new heated air to the interior of the drum member and thus dry the coating solution on the pieces of material substantially instantaneously" (col. 5, ln. 20-24). "In this regard, as opposed to the prior art processes which add the coatings (spray), tumble the cores and then dry them in essentially three distinct steps, the present invention accomplishes all three of these steps at substantially the same time" (col. 6, ln. 42-46). The procedure is periodically stopped for cleaning of the nozzles. Further components may be added to the spray coating, including a 1% Gum Arabic solution, starch or titanium dioxide (col. 7). The heated air introduced into the drum "is approximately 150-250°F" (col. 5), or about 65.5- 121°C. The pieces of the coated material are preferably maintained "at a temperature of approximately 120°F", or about 48°C. Column 6 of the reference teaches the use of a series of rotating drum members, where the pieces to be coated may enter at a lower temperature than the air being supplied to the system, and where the initial air temperature being supplied may be lower than in subsequent cycles in order to prevent sticking of the pieces.

Hartel is taken as cited above.

Thus, it would have been obvious to one of ordinary skill in the art to have provided the claimed method system for hard panning of chewable coated cores, where the layer most recently applied has not dried completely, to "leave a substantial residual moisture in the drying coating layer at the start of a subsequent spraying phase", as recited in instant claim 1. The variable parameters, such as syrup concentration, air flow, temperature and relative humidity, and the principles dictating these factors, are discussed in both references. It was well known in the art, as stated by Hartel, that moisture migration (i.e. drying) continues to take place even after subsequent coating layers have been applied, and thus whether this process is "intentional" or not, the instant claims do not provide a distinct patentable contribution to the art.

Claims 9-14 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Degady et al. in view of Hartel, taken as cited above, in view of Reed et al. (US 5,376,389, of record).

Further, at column 7, lines 42-45, Degady et al. states that "the coating material could be a sugarless coating as well as a sugar coating."

Reed et al. discloses a dual-composition hard-coated chewing gum, produced by coating the gum cores with a composition containing 50-100% xylitol, and layers containing another polyol such as lactitol, maltitol or sorbitol. At pages 13-14 (of applicant's supplied copy), the reference states that the syrup is applied at a temperature of approximately 100-200 degrees F (37.7 - 93°C), and the forced drying air is introduced at a temperature of from about 80-115°F (26 - 46°C).

Thus, given the teachings of Reed et al., as well as the combination of teachings of both Degady et al. and Hartel, as cited above, it would have been obvious to one of ordinary skill in the art to have provided the claimed method system for hard panning of chewable coated cores, where the layer most recently applied has not dried completely, to "leave a substantial residual moisture in the drying coating layer at the start of a subsequent spraying phase", as recited in instant claim 1, using a coating of from 40-80% xylitol and/or another polyol.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith Hendricks whose telephone number is (703) 308-2959. The examiner can normally be reached on M-F (8:30am-6pm); First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (703) 308-3959. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9565 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

KEITH HENDRICKS
PRIMARY EXAMINER